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EXAMINER	
LIN, JASON K	

ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/772,130	CHEN, JUN	
	Examiner	Art Unit	
	JASON K. LIN	2425	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 June 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *5,6,32,33,36 and 37* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *5, 6, 32, 33, 36, and 37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is responsive to application No. 10/772,130 filed on 06/10/2010. **Claims 5, 6, 32, 33, 36, and 37** have been cancelled, **Claims 1, 8-16, and 25-31** are pending and have been examined.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 06/10/2010 has been entered.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 8 is rejected under 35 U.S.C 101 as not falling within one of the four statutory categories of invention. The specification, at Paragraph 0024, 0045, 0059, 0060, and 0066 teaches computer readable media, but since it does not specify what the claimed computer readable media may be, it may be software, transitory signal, etc (which are non-statutory), then the claim as a whole can be considered to be only software which is not a "process", "machine" or "article of manufacture".

The claim may be amended by changing “computer readable media" to - non-

transitory computer readable media --, thus excluding that portion of the scope covering transitory signals. The scope of the disclosure given the state-of-the-art covers both transitory and non-transitory media, and this amendment would limit the claim to an eligible (non-transitory) embodiment.

Response to Arguments

2. Applicant's arguments with respect to **Claims 1, 8-16, and 25-31** have been considered but are moot in view of the new ground(s) of rejection. However, some of applicant's remark(s) are to be addressed.

A) Applicant's assert on paragraph [0014-0016] that "...the Office has not identified an objective reason to combine the references. As stated in KSR at 418:... In KSR the court reiterated the caution against hindsight reasoning from Grahm..."

In response the examiner respectfully disagrees.

In response to applicant's argument, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was

within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). Both Knudson'823 and D'Souza are regarding the selection and outputting of various types of media content, and also in the same field of video distribution. These art of record are analogous to one another.

B) Applicant's assert on paragraph [0017-0020] that "The Office's statement that the combination would provide, 'the advantage of allowing a variety of desired content to be launched and played to the user independently by the system, providing a more intuitive, versatile, and robust system having a greater control and management over execution of content,' is flawed in that Knudson-823 already allows for a variety of desired content to be launched and played to the user independently by the system. Because Knudson-823 already provides the functionality, a suggestion that Knudson-823 lacks that functionality is inherently flawed…"

In response the examiner respectfully disagrees. Knudson'823 does allow for a variety of desired content to be launched and played, but is not explicit as to how this is done or controlled. By combining D'Souza with Knudson'823, the way desired content is launched and played is better defined, where it improves the way Knudson'823 launches and displays content (which was not specified in Knudson'823 on how this was done), allowing content to be played to the user independently by the system, providing a more intuitive, versatile, and robust system having greater control and

management over execution of content. The system is independent in that it does not require any other external indicators, commands, or influences in order to identify applications to be launched, allowing the system to be utilized on many systems regardless of other factors, only in that it can identify the type of media content, thus providing greater control by the client system itself over execution of content, allowing proper content to be launched at any desired time by readily available compatible applications on the user device. Having one application launcher software module 120 as taught by D'Souza allowing for centralized and unified launching content, allowing for simplified troubleshooting of the system, instead of having to maintain countless modules independent of one another, so that only one source controls launching of applications, allowing changes to be made easily and allowing them to be quickly applied to the user device. The motivation provided for combining D'Souza has also been edited further including the rationale and benefits provided above, in order to better clarify the motivation for combination of the references.

C) Applicant's assert on paragraph [0021-0023] that "…D'Souza does not explicitly teach or suggest, 'choosing, by the virtual tuner, one or more of the plurality of applications that, when executed, provide the selected content represented by the EPG, wherein the choosing is independent of any application identifying information originating from a computer distinct from the client… However, the editorial content itself is not represented in an EPG. Rather, the EPG includes a link to an index from which the editorial content may be accessed. As such, there is no suggestion in D'Souza that

a virtual tuner chooses an application based on content selected from an EPG. Rather, the content is selected from a content index, which is separate from the EPG..."

In response, the examiner respectfully disagrees. The previous reference(s) had already taught EPG items that could be selected and executed, providing the selected content represented by the EPG. What the previous reference(s) did not explicitly teach was “choosing, by the virtual tuner, one or more of the plurality of applications that, when executed, provided the selected content, wherein the choosing is independent of any application identifying information originating from a computer distinct from the client." These items can vary depending on the type of content, such as televised programming, audio, internet, etc. Content items each in themselves is a media object with a corresponding content type that can be played with a corresponding application. The editorial items in D’Souza as evidenced, but not restricted to those in Paragraph 0037-0038 in D’Souza are no different. They consist of among other things, but are not restricted to text, interactive content items, video, etc. D’Souza’s content items are very much similar to the contents as those described by the previous base references used before D’Souza. The previous references used such as Ellis and Knudson already teaches multiple content items presented on an EPG that can provided by the client when selected, but were silent about the use of a virtual tuner to manage the execution of such contents. D’Souza containing similar contents types such as those in Ellis and Knudson was used in combination, to teach such concepts of the virtual tuner. D’Souza, Ellis, and Knudson are not different, and contain similar content types. Such a combination is not restrictive to the fact that merely a content item is shown on an EPG

or not, content items shown simultaneously on an EPG are already covered by Ellis and Knudson, what was missing from those two references was the explicit teachings of a virtual tuner used for executing the content, for which D'Souza teaches. Therefore, since the content items managed by the virtual tuner of D'Souza are like those described in Ellis and Knudson, the examiner sees no reason why these references cannot be combined. The references of record continue to meet the currently claimed limitations.

C) In response to applicant's assertions on Paragraph 0024-0043, please see parts (A)-(C) above.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. **Claims 1 and 8** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellis et al. (US 2005/0283800), in view of Hassell et al (2007/0033615), and further in view of D'Souza et al. (US 2006/0117348).

Consider **claim 1,** Ellis teaches receiving, by a client device, electronic program guide (EPG) data from an EPG provider, the EPG data describing characteristics of media assets that are available from a content provider (Fig.1; Paragraph 0060-0062 teaches main facility 34-Fig.1 distributing program guide

data to television distribution facility-Fig.1 and in turn television distribution facility-Fig.1 distributing program guide data to user television equipment 40-Fig.1; Paragraph 0098, Fig.17a-b teaches where program listings data needed by the program guide to display VOD listings and program listings other than VOD listings integrated into the program guide display screen are provided to the program guide application; Including but not limited to Fig.15 also shows media listings listed along with regular program listings);

identifying, by the client one or more available media assets, the available media assets (Fig.2; Paragraph 0096-0098, 0101, 0104 teaches different applications used to output corresponding content. Paragraph 0067 teaches applications such as program guide application and non-program-guide applications may be implemented on any suitable platform such as user television equipment 40-Fig.1) including:

a media asset that is available for output through execution of an application installed on the client device, the application being selected from a group of applications (Fig.2, Paragraph 0070 teaches many different types of applications; Paragraph 0096-0098, 0101, 0104 teaches different applications used to output corresponding content {media asset}) comprising:

a web browser (Web browser application 84-Fig.2; Paragraph 0069-0070, 0096 teaches a web browser application); and

a game application (gaming services application 90-Fig.2; Paragraph 0069-0070, 0096 teaches a gaming application); and

generating, by the client device, an EPG display based on the EPG data and available media assets, the EPG display configured to simultaneously display different types of media assets (Paragraph 0060-0062 teaches receiving program guide data. Paragraph 0104, 0096-0098, 0101 teaches incorporating listings such as web content, video on demand, audio, games, etc alongside regular program listings. Figs.15, 17a-b, Paragraph 0096, 0098-0099 teaches an EPG simultaneously displaying listings containing different types of media assets);

receiving a user-submitted selection of a particular media asset represented in the EPG display; in response to the user-submitted selection of the particular media asset, an application for presenting the particular media asset; execution of the application for presenting the particular media asset (Paragraph 0096-0098, 0101, 0104);

Ellis does not explicitly teach identifying, by the client device, one or more locally available media assets, the locally available media assets including:

a local media asset previously stored on the client device from a broadcast of a content provider over the network; and

a local media asset that is available for output through execution of an application installed on the client device;

generating, by the client device, an EPG display based on the EPG data and the locally available media assets, the EPG display configured to simultaneously display different types of media assets;

in response to the user-submitted selection of the particular media asset, a virtual tuner executed on the client device selecting an application for presenting the particular media asset;

managing, by the virtual tuner, execution of the application for presenting the particular media asset.

In an analogous art, Hassel teaches identifying, by the client device, one or more locally available media assets, the locally available media assets including: a local media asset previously stored on the client device from a broadcast of a content provider over the network; and a local media asset that is available for output through execution of an application installed on the client device; generating, by the client device, an EPG display based on the EPG data and the locally available media assets, the EPG display configured to simultaneously display different types of media assets (Paragraph 0038-0041 teaches programs stored in digital storage device Fig.3, 4 and displaying the stored programs on a selectable programs listing grid shown in Fig. 5b for selection and playback. Paragraph 0022-0023 and 0025 teaches that the digital storage device 31-Fig.2 can be contained at the set-top box 28 {client} where user equipment 22-Fig.3 is a more generalized embodiment of user equipment 22-Fig.2).

Therefore, it would have been obvious to one of ordinary skill in the art to modify the Ellis' system to include identifying, by the client device, one or more locally available media assets, the locally available media assets including: a local media asset previously stored on the client device from a broadcast of a content provider over the network; and a local media asset that is available for output through execution of an application installed on the client device; generating, by the client device, an EPG display based on the EPG data and the locally available media assets, the EPG display configured to simultaneously display different types of media assets, as taught by Hassell, for the advantage of providing stored content that is readily available allowing the user to watch/enjoy anytime and as many times desired at their own leisure, providing entertainment readily on demand, allowing for instant satisfaction and consumption of media content.

Ellis and Hassel do not explicitly teach in response to the user-submitted selection of the particular media asset, a virtual tuner executed on the client device selecting an application for presenting the particular media asset;

managing, by the virtual tuner, execution of the application for presenting the particular media asset.

In an analogous art, D'Souza in response to the user-submitted selection of the particular media asset, a virtual tuner executed on the client device selecting an application for presenting the particular media asset (Paragraph 0029, 0033, 0037-0038 teaches the user selecting a particular content and the

system determining the appropriate application to use to launch the selected content by comparing to see what the content type of the selected content is);

managing, by the virtual tuner, execution of the application for presenting the particular media asset (application launcher 220-Fig.2; Paragraph 0029, 0037-0038 teaches software which manages the execution of each of the applications in response to events formed).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Ellis and Hassel to include in response to the user-submitted selection of the particular media asset, a virtual tuner executed on the client device selecting an application for presenting the particular media asset; managing, by the virtual tuner, execution of the application for presenting the particular media asset, as taught by D'Souza, for the advantage of allowing a variety of desired content to be launched and played to the user independently by the system in a centralized and unified manner, allowing for one local source to control applications to launch content, providing a more intuitive, versatile, and robust system having greater control and management over execution of content, instead of having countless modules independent of one another, thus allowing for simplified system control and troubleshooting, allowing changes to be made easily and quickly applied to the user device, providing more streamlined handling of processes on the user device.

Consider **claim 8,** Ellis, Hassel, and D'Souza teach one or more computer readable-media comprising computer executable instructions that, when executed on a computer, direct the computer to perform the method of claim 1 (D'Souza - Paragraph 0022-0023).

5. **Claims 9, 11, 13, 14, and 16** are rejected under 35 U.S.C. 103(a) as being unpatentable over Knudson (US 7,254,823) herein after referred to as Knudson'823 in view of D'Souza et al. (US 2006/0117348).

Consider **claim 9,** Knudson'823 teaches, a method comprising:

receiving a selection made from a plurality of content using an EPG that is output by the client (Col 9: lines 5-14, Col 5: lines 43-46), wherein:

the EPG includes a representation of each said content for simultaneous display by the client (Fig.10; Col 6: lines 12-19, Col 7: line 63 - Col 8: line 6, Col 9: lines 5-14);

at least one said content is television programming (Fig.10; Col 5: lines 62-63;

providing selected content represented by the EPG (Fig.10; Col 5: lines 31-48, Col 6: lines 12-28, Col 9: lines 5-10, lines 62-67 teaches selecting and providing the content represented on the EPG);

Knudson'823 does not explicitly teach a virtual tuner executed on a client;

receiving, by the virtual tuner, a selection made from a plurality of content;

each said content is provided for output by a respective one or more of a plurality of applications;

choosing, by the virtual tuner, one or more of the plurality of applications that, when executed, provide the selected content represented by the guide, wherein the choosing is independent of any application identifying information originating from a computer distinct from the client; and

managing, by the virtual tuner, execution of the chosen one or more applications to output the selected content.

In an analogous art D'Souza teaches, a virtual tuner executed on a client; receiving, by the virtual tuner, a selection made from a plurality of content (application launcher 220-Fig.2; Paragraph 0029, 0037-0038);

each said content is provided for output by a respective one or more of a plurality of applications (Paragraph 0029-0030, 0037-0038);

choosing, by the virtual tuner, one or more of the plurality of applications that, when executed, provide the selected content represented by the guide, wherein the choosing is independent of any application identifying information originating from a computer distinct from the client (application launcher 220-Fig.2; Paragraph 0029, 0037-0038 teaches software which manages the execution of each of the applications in response to events formed utilizing the guide); and

managing, by the virtual tuner, execution of the chosen one or more applications to output the selected content (Paragraph 0029, 0037-0038).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify Knudson'823s system to include a virtual tuner executed on a client; receiving, by the virtual tuner, a selection made from a plurality of content; each said content is provided for output by a respective one or more of a plurality of applications; choosing, by the virtual tuner, one or more of the plurality of applications that, when executed, provide the selected content represented by the guide, wherein the choosing is independent of any application identifying information originating from a computer distinct from the client; and managing, by the virtual tuner, execution of the chosen one or more applications to output the selected content, as taught by D'Souza, for the advantage of allowing a variety of desired content to be launched and played to the user independently by the system in a centralized and unified manner, allowing for one local source to control applications to launch content, providing a more intuitive, versatile, and robust system having greater control and management over execution of content, instead of having countless modules independent of one another, thus allowing for simplified system control and troubleshooting, allowing changes to be made easily and quickly applied to the user device, providing more streamlined handling of processes on the user device.

Consider **claim 11,** Knudson'823 and D'Souza teach wherein the managing is performed in response to one or more events received from the EPG (D'Souza - Paragraph 0029, 0036).

Consider **claim 13,** Knudson'823 and D'Souza teach wherein said content provided by a first said application is not compatible with a second said application (D'Souza - Paragraph 0037-0038 teaches launching different applications based on the type of content that is to be played. *Therefore, only their corresponding application can play the selected content, so content that is executable by one application is not executable by another*).

Consider **claim 14,** Knudson'823 and D'Souza teach wherein: the managing includes managing one or more windows; and at least one of said window is utilized to display the selected content (D'Souza - Paragraph 0033).

Consider **claim 16,** Knudson'823 and D'Souza teach one or more computer readable-media comprising computer executable instructions that, when executed on a computer, direct the computer to perform the method of claim 9 (D'Souza - Paragraph 0022-0023).

6. **Claim 10** is rejected under 35 U.S.C. 103(a) as being unpatentable over Knudson (US 7,254,823) herein after referred to as Knudson'823, in view of D'Souza et al. (US 2006/0117348), and further in view of Hoarty et al. (6,305,020).

Consider **claim 10,** Knudson'823 and D'Souza teaches launching the chosen one or more applications for outputting the selected said content (D'Souza - Paragraph 0029, 0037-0038).

Knudson'823 and D'Souza does not explicitly teach terminating the chosen one or more applications when the outputting is completed or an event is received from the EPG.

In an analogous art, Hoarty teaches terminating the chosen one or more applications when the outputting is completed or an event is received from the EPG (Col 10: lines 11-17 teaches a program managing display of content. When outputting of the content is over, the program follows the steps of call take down {termination} as described in Col 9: lines 64-11)

Therefore, it would have been obvious to one of ordinary skill in the art to modify the system of Knudson'823 and D'Souza to include terminate the chosen one or more applications when the outputting is completed or an event is received from the EPG, as taught by Hoarty, for the advantage of freeing up resources for subsequent use by other applications making efficient use of available resources on the system.

7. **Claim 12** is rejected under 35 U.S.C. 103(a) as being unpatentable over Knudson (US 7,254,823) herein after referred to as Knudson'823, in view of D'Souza et al. (US 2006/0117348), and further in view of Jerding (US 6,738,982) herein after referred to as Jerding'982.

Consider **claim 12,** Knudson'823 and D'Souza do not explicitly teach managing includes managing a lifecycle of the chosen one or more applications.

In an analogous art Jerding'982 teaches, managing includes managing a lifecycle of the chosen one or more applications (Col 3: lines 19-27 teaches a service application manager (SAM) Fig.2, 29 that handles the lifecycle of the applications).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Knudson'823 and D'Souza to include managing includes managing a lifecycle of the chosen one or more applications, as taught by Jerding'982, for the advantage of efficiently controlling the activation, suspension, and deletion of applications (Jerding'982 - Col 3: lines 25-27), optimizing the control and the use of resources available to the client device.

8. **Claim 15** is rejected under 35 U.S.C. 103(a) as being unpatentable over Knudson (US 7,254,823) herein after referred to as Knudson'823, in view of D'Souza et al. (US 2006/0117348), in view of Houghton et al. (US 2005/0021609), and further in view of Hassell et al (2007/0033615).

Consider **claim 15,** Knudson'823 and D'Souza teaches a plurality of content (Knudson - Col 9: lines 5-14, Col 5: lines 43-46; D'Souza - Paragraph 0027), but do not explicitly teach that it includes remote content available over the Internet and local content available locally on the client.

In an analogous art Houghton teaches, remote content available over the Internet (Paragraph 0009-0010 teaches receiving web content over communications card 121-Fig.4. The web content may be sports event or a continuous series of programming that is transmitted over the internet).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Knudson'823 and D'Souza to include remote content available over the Internet, as taught by Houghton, for the advantage of providing programming that might have otherwise been unavailable for which a broadcast network who has viewing rights, but decides not to broadcast the event (Houghton - Paragraph 0010).

Knudson'823, D'Souza, and Houghton do not explicitly teach local content available locally on the client.

In an analogous art, Hassell teaches local content available locally on the client (Paragraph 0038-0041 teaches programs stored in digital storage device Fig.3, 4 and displaying the stored programs on a selectable programs listing grid shown in Fig. 5b for selection and playback. Paragraph 0022-0023 and 0025 teaches that the digital storage device Fig.2, 31 can be contained at the set-top

box 28 [client] where user equipment Fig.3, 22 is a more generalized embodiment of user equipment Fig.2, 22).

Therefore, it would have been obvious to one of ordinary skill in the art to modify the system of Knudson'823, D'Souza, and Houghton to include local content available locally on the client, as taught by Hassell, for the advantage of providing stored programming to the user that can be watched anytime and as many times desired at their own leisure.

9. **Claims 25 and 27-29** are rejected under 35 U.S.C. 103(a) as being unpatentable over Knudson (US 7,254,823) herein after referred to as Knudson'823, in view of D'Souza et al. (US 2006/0117348), and further in view of Jerding et al. (US 6,792,616) herein after referred to as Jerding'616.

Consider **claim 25,** Knudson'823 teaches a client (40-Fig.1) comprising:

a processor (Col 5: lines 5-7);

a network interface, communicatively coupled to the processor, configured to provide a network connection to a wide area network (WAN) (Fig.1, Col 1:line 61 – Col 4: line 43 teaches an entire network that the receiver is connected to {WAN}. Col 4: lines 33-43 teaches one or more uni or bidirectional communication paths to the receiver for delivery of content. *Therefore, the receiver inherently has a network interface for connecting to the outside network to receive the content via the communication path(s), and is communicatively*

coupled to the processor in order to receive, process, and display such content received);

an output interface, communicatively coupled to the processor, the output interface configured to provide an output for rendering by a display device (television 48-Fig.1; Col 5: lines 31-38); and

a memory configured to maintain (Col 5: lines 5-7, Col 4: lines 33-43 teaches a processor that handles tasks associated with implementing a guide application, and the user device receiving different types of information, *therefore, the user device inherently has some sort of memory to store information and instructions to implement a guide application*):

an electronic program guide (EPG) engine that is executable on the processor to provide an EPG for output on the output interface (Col 5: lines 5-7 teaches a program guide application handled and implemented by the processor. Col 5: lines 31-38 teaches presenting the program guide on the television 48-Fig.1), wherein the EPG simultaneously displays a plurality of representations of said content for selection (Fig.10; Col 6: lines 12-19, Col 7: line 63 - Col 8: line 6, Col 9: lines 5-14); and

selection of said representations of said content (Fig.10; Col 5: lines 31-48, Col 6: lines 12-28, Col 9: lines 5-10, lines 62-67 teaches selecting and providing the content represented on the EPG);

Knudson'823 does not explicitly teach a plurality of applications that are executable on the processor to provide an output of content on the output interface;

a virtual tuner that is executable on the processor to launch one or more of said plurality of applications in response to selection of said representations of said content, independent of any application identifying information originating from a computer distinct from the client, said virtual tuner utilizing an application identification table that includes a listing of one or more applications to enable execution of each of said plurality of applications.

In an analogous art D'Souza teaches, memory (memory 212-Fig.2) configured to maintain:

a plurality of applications that are executable on the processor to provide an output of content on the output interface (Software programs 214, 216, 218, 220 – Fig.2; Paragraph 0021 teaches receiving video programming via network interface 208-Fig.2; Paragraph 0029-0030, 0037-0038 teaches different applications that may be executed to provide content outputted to the display device for display to the client, where the content can be video programming);

a virtual tuner that is executable on the processor to launch one or more of said plurality of applications in response to selection of said representations of said content, independent of any application identifying information originating from a computer distinct from the client (application launcher 220-Fig.2;

Paragraph 0029, 0037-0038 teaches software which manages the execution of each of the applications in response to selection of content utilizing the guide),

Therefore, it would have been obvious to a person of ordinary skill in the art to modify Knudson'823s system to include the client includes a plurality of applications that are executable on the processor to provide an output of content on the output interface; a virtual tuner that is executable on the processor to launch one or more of said plurality of applications in response to selection of said representations of said content, independent of any application identifying information originating from a computer distinct from the client, as taught by D'Souza, for the advantage of allowing a variety of desired content to be launched and played to the user independently by the system in a centralized and unified manner, allowing for one local source to control applications to launch content, providing a more intuitive, versatile, and robust system having greater control and management over execution of content, instead of having countless modules independent of one another, thus allowing for simplified system control and troubleshooting, allowing changes to be made easily and quickly applied to the user device, providing more streamlined handling of processes on the user device.

Knudson'823 and D'Souza do not explicitly teach said virtual tuner utilizing an application identification table that includes a listing of one or more applications to enable execution of each of said plurality of applications.

In an analogous art Jerding'616 teaches, a virtual tuner utilizing an application identification table that includes a listing of one or more applications to enable execution of each of said plurality of applications (Col 11: lines 39-56; Col 10: lines 40-54; Col 11: lines 42-46).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Knudson'823 and D'Souza to include a virtual tuner utilizing an application identification table that includes a listing of one or more applications to enable execution of each of said plurality of applications, as taught by Jerding'616, for the advantage of better organization and efficiency for determining the appropriate applications to execute on the client.

Consider **claim 27,** Knudson'823, D'Souza, and Jerding'616 teach manage one or more windows corresponding to the plurality of applications; and at least one of said window includes display of the selected said content (D'Souza - Paragraph 0033).

Consider **claim 28,** Knudson'823, D'Souza, and Jerding'616 teach the network interface is configured as a tuner for receiving one or more broadcasts of the television programming over the WAN; and the WAN is configured as a broadcast network (Knudson – Col 4: lines 33-52; D'Souza - Paragraph 0020-0021 teaches multiple customer set top boxes connected to the distribution

network where they receive audio, video, and other types of data sent by the headend).

Consider **claim 29,** Knudson'823, D'Souza, and Jerding'616 teach wherein the content provided by a first said application is not compatible with a second said application (D'Souza - Paragraph 0037-0038 teaches launching different applications based on the type of content that is to be played. *Therefore, only their corresponding application can play the selected content, so content that is executable by one application is not executable by another*).

10. **Claim 26** is rejected under 35 U.S.C. 103(a) as being unpatentable over Knudson (US 7,254,823) herein after referred to as Knudson'823, in view of D'Souza et al. (US 2006/0117348), in view of Jerding et al. (US 6,792,616) herein after referred to as Jerding'616, and further in view of Jerding (US 6,738,982) herein after referred to as Jerding'982.

Consider **claim 26,** Knudson'823, D'Souza, and Jerding'616 teach do not explicitly teach wherein the virtual tuner is further executable to terminate execution of the one or more said applications.

In an analogous art Jerding'982 teaches, wherein a virtual tuner is further executable to terminate execution of the one or more said applications (erding'982 - Col 3: lines 19-27 teaches service application manager (SAM)

Fig.2, 29 that handles the lifecycle of applications on the system, including suspension and deletion of services).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Knudson'823, D'Souza, and Jerding'616 to include wherein a virtual tuner is further executable to terminate execution of the one or more said applications, as taught by Jerding'982, for the advantage of efficiently controlling the activation, suspension, and deletion of applications (Jerding'982 - Col 3: lines 25-27), optimizing the control and the use of resources available to the client device in order to save system resources.

11. **Claim 30** is rejected under 35 U.S.C. 103(a) as being unpatentable over Knudson (US 7,254,823) herein after referred to as Knudson'823, in view of D'Souza et al. (US 2006/0117348), in view of Jerding et al. (US 6,792,616) herein after referred to as Jerding'616, and further in view of Knudson et al. (6,526,577) herein after referred to as Knudson'577.

Consider **claim 30,** Knudson'823, D'Souza and Jerding'616 do not explicitly wherein the WAN is the Internet.

In an analogous art, Knudson teaches a WAN is the Internet (Col 5: lines 34-50 teaches video signals, e.g. television programs, that is distributed over communications path Fig.2c, 20. Communications path 20 may be an Internet link).

Therefore, it would have been obvious to one of ordinary skill in the art to modify the system of Knudson'823, D'Souza, and Jerding'616 to have the WAN as the internet, as taught by Knudson, for the advantage of providing programming to users that might otherwise be unable to receive programming over the air and do not have cable.

12. **Claim 31** is rejected under 35 U.S.C. 103(a) as being unpatentable over Knudson (US 7,254,823) herein after referred to as Knudson'823, in view of D'Souza et al. (US 2006/0117348), in view of Jerding et al. (US 6,792,616) herein after referred to as Jerding'616, and further in view of Hassell et al (2007/0033615).

Consider **claim 31,** Knudson'823, D'Souza, and Jerding'616 teach wherein the content includes remote content available over the WAN (D'Souza - Paragraph 0021, 0027), but does not explicitly teach local content available locally on the client.

In an analogous art, Hassell teaches local content available locally on the client (Paragraph 0038-0041 teaches programs stored in digital storage device Fig.3, 4 and displaying the stored programs on a selectable programs listing grid shown in Fig. 5b for selection and playback. Paragraph 0022-0023 and 0025 teaches that the digital storage device Fig.2, 31 can be contained at the set-top box 28 [client] where user equipment Fig.3, 22 is a more generalized embodiment of user equipment Fig.2, 22).

Therefore, it would have been obvious to one of ordinary skill in the art to modify the system of Knudson'823, D'Souza, and Jerding'616 to include local content available locally on the client, as taught by Hassell, for the advantage of providing stored programming to the user that can be watched anytime and as many times desired at their own leisure.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON K. LIN whose telephone number is (571)270-1446. The examiner can normally be reached on 10AM - 6PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Pendleton can be reached on (571)272-7527. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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